

DEPARTMENT OF PERMITTING, ENVIRONMENT, AND REGULATORY BOARD AND CODE ADMINISTRATION DIVISION

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11805 SW 26 Street, Room 208 Miami, Florida 33175-2474

MIAMI-DADE COUNTY

PRODUCT CONTROL SECTION

NOTICE OF ACCEPTANCE (NOA) Master Security Doors Inc.,

2179 N. Powerline Road, Suite #2

Pompano Beach, FL 33069

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County PERA -Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. PERA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Series "EX3" Single Inswing Steel Door -L.M.I.

APPROVAL DOCUMENT: Drawing No. 12-059 (old #11-036), titled "EX3 USA Inswing Door Large Missile Impact Resistant", sheets 1 through 11of 11, dated 03/12/12, prepared by Tilteco Inc., signed and sealed by Walter A. Tillit Jr., P.E., bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant Limitation:

- 1. Refer to sheet 3 of the Dwgs for Design Pressure Vs anchor type and anchor spacing "S"
- 2. Min (5) retention clip per side jamb required (Max 28.74" OC), See detail X/11 in sheets 3 and 11.

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and series and following statement: "Miami-Dade County Product Control Approved", noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA revises NOA # 11-0228.03 and consists of this page 1 and evidence pages E-1, as well as approval document mentioned above.

The submitted documentation was reviewed by Ishaq I. Chanda, P.E.



NOA No 12-0320.22 **Expiration Date: February 23, 2016** Approval Date: June 14, 2012

Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

- 1. Manufacturer's die drawings and sections (transferred from file # 11-0228.03)
- 2. Drawing No. 12-059 (old #11-036), titled "EX3 USA Inswing Door Large Missile Impact Resistant", sheets 1 through 11 of 11, dated 03/12/12, prepared by Tilteco Inc., signed and sealed by Walter A. Tillit Jr., P.E.

Note: This revision consists of FBC 2010 notes only.

B. TESTS (submitted under files # 11-0420.01/05-1121.04)

- 1. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
 - 2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
 - 3) Water Resistance Test, per FBC, TAS 202-94
 - 4) Large Missile Impact Test per FBC, TAS 201-94
 - 5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
 - 6) Forced Entry Test, per FBC 2411 3.2.1, TAS 202-94

Along with marked-up drawings and installation diagram of inswing steel door, prepared by American Test Lab of South Florida, Test Report No. ATL# 0708.01-05, dated 11/09/05, signed and sealed by William R. Mehner, P.E.

C. CALCULATIONS

1. Anchor Calculation and Structural analysis complying w/ FBC 2004, prepared by Tilteco, Inc., dated 09/09/05, signed and sealed by Walter A. Tillit Jr., P.E. (submitted under # 05-1121.04)

D. QUALITY ASSURANCE

1. Miami Dade Department of Permitting, Environment, and Regulatory Affairs (PERA).

E. MATERIAL CERTIFICATIONS

1. Tensile test report # 5GM-704 dated July 28, 2005 per ASTM E-8, issued by Metallurgical Inc, signed by Frank Grate(submitted under # **05-1121.04**)

F. STATEMENTS

- 1. Statement letter of compliance to FBC 2010, dated 03/12/12 issued by Tilteco Inc., signed and sealed by Walter A. Tillit Jr., P.E.
- 2. Statement letter of compliance to FBC 2007, dated 04/14/11, issued by Tilteco Inc., signed and sealed by Walter A. Tillit Jr., P.E. (submitted under # 11-0228.03)
- 3. Statement letter of compliance to FBC 2004 & "No financial interest", dated 04/14/11 issued by Tilteco Inc., both signed and sealed by Walter A. Tillit Jr., P.E.(submitted under # 05-1121.04)
- 4. Lab compliance as part of the above referenced test report.

G. OTHER

1. This NOA revises NOA # 11-0228.03, expiring on 02/23/16.

Ishaq I. Chanda, P.E. Product Control Examiner NOA No 12-0320,22

Expiration Date: February 23, 2016

Approval Date: June 14, 2012

GENERAL NOTES

1. EX-3 USA, Inswing single door, large missile impact resistant shown on this Product Approval Document (P.A.D.) has been verified for compliance in accordance with the 2007 & 2010 editions of the Florida Building Code. Door may be installed at High Velocity Hurricane Zones. Design wind loads shall be determined as per section 1620 of the above mentioned codes, using ASCE 7-05 standar for installations under 2007 FBC & ASCE 7-10 standard for installations under 2010 FBC and shall not exceed the maximum (A.S.D.) design pressure rating indicated on note 2 on this sheet & sheet 3. In order to verify the above condition, ultimate design wind loads determined per ASCE 7-10 shall be first reduced to A.S.D design wind loads by multiplying them by 0.6 in order to compare these w/ max. (A.S.D) design pressure rating indicated on note 2 on this sheet & sheet 3.

In order to verify that anchors on this P.A.D., as tested, were not overstressed, a 33% increase in allowable stresses for wind loads was not used in their analysis. A duration factor C D = 1.60 was used to verify fasteners in wood. This door's adequacy for impact and cyclic resistance has been verified in accordance with section 1626 of the above mentioned code, as per TAS 201, 202 and 203 protocols, per ATL Report #0708.01-05, and as per submitted calculations performed as per section 1612 of the Florida Building Code.

2. Max A.S.D. Design Pressure Rating: + 70, -200 psf

This A.S.D. design pressure rating is only valid if door is assembled with required hardware indicated on sheet 2

3. This Door is approved for Air and Water Infiltration.

This approval is only valid if door is sealed with required gasketing and weather stripping as indicated on Bill of Materials on sheet 3, and sealant specified on General Note 10 below.

4. This Door will not require a Hurricane Protective Device.

- 5. Wood bucks by others, and must be properly anchored to transfer loads to the existing structure. Wood bucks must be Southern Pine #2, with specific Gravity G equal or greater than 0.55, and shall comply w/ sections 2411.3.3.3. & 2326 of the 2007 & 2010 editions of the Florida Building Code & must sustain loads imposed by door and
- 6. Anchors for fastening door subframe to existing structure must be as indicated on sheet 3.
- 7. All welding to conform to the American welding Society AWS D1.3 and AWS D9.1 Regulations per Florida Building Code, section 2214.3. Use certified welders.
- 8. All screws used for assembly connections (metal to metal) to be stainless steel 304 or 316 series or corrosion resistant coated carbon steel as per DIN 50018 with 50 ksi minimum yield strength and 90 ksi tensile strength and shall comply with
- 9. Remaining components for this door system shall be as indicated on Bill of Materials on sheet 2 of this drawing.
- 10. Sealing of door components shall be as follows:

Frame: The interior and exterior perimeter joints and all frame connections shall be sealed with silicone sealant. The two sheet metal 45° angle shaped sections at the corner key shall be sealed to each other and to the sheet metal fabricated corner section with silicone sealant. The two steel sections at the sill shall be sealed with silicone sealant. Hinges shall be also sealed to hinge jamb with silicone sealant.

Sub-frame: The interior and exterior perimeter joints and all sub-frame connections shall be sealed with silicone sealant. Sub-frame shall be also sealed to the frame with silicone sealant around the exterior perimeter. Sub-frame shall be sealed to

Door: The interior and exterior perimeter joints and all door connections to the main casing at the top rail, bottom rail and stiles shall be sealed with silicone sealant. Hinges shall also be sealed to hinge stile with silicone sealant. The plywood panel on exterior side of door shall be sealed around perimeter of the top rail, bottom rail and stiles with silicone sealant. The interior and exterior perimeter joints and all frame connections were sealed with silicone sealant. The sill flashing was sealed to the door panel with silicone sealant.

- 11. Frame and Sub-frame Material: Hot rolled steel DD12 Reference EN 10111 with Tensile Strength = 55,900 psi; Yield Strength at 0.2% = 52,400 psi; Ultimate Elongation 24.5%.
- 12. Door Material: Hot rolled zine plated DX51 + Z100 (275 G/M 2 0.6 Oz/Ft2) Reference EN 10142 + A1-97 with Tensile Strength = 54300 psi, Yield Strength at 49,600 psi; Ultimate Elongation = 23%.
- 13. ASTM Designation for Steel: Equivalent to ASTM A 653 CQ Grade 50 at frame and ASTM A 653 CQ Grade 50 at door.
- 14. Galvanizing type: G60 (initial shop coated), followed by a second coat of asphalt paint in accordance w/ 2007 & 2010 Florida Building Code, section 2220.2
- 15. Decorative Wood Clad Panels: 0.250 (1/4") thick plywood (min. E=1300 ksi.), oak (min. E=1573 ksi.), pine (min. E=1417 ksi.), mahogany (min. E=1204 ksi.), Douglas fir (min. E=1390 ksi.) with 10-12% maximum moisture content, painted with minimum of two (2) coats of water based varnishes, protective impregnators and coatings for outdoor installations.
- 16. Door's manufacturer label shall be placed on the exposed surface of door's frame or sub-frame. One Label shall be placed for every door. Label shall read as follows:

Master Security Doors, Inc. Deerfield Beach, Fl Miami Dade County Product Control Approved.

17.

a. This P.A.D. prepared by this engineer is generic and does not provide information for a specific project; i.e., where the site conditions deviate from the P.A.D.

b. Contractor to be responsible for the selection, purchase and installation, including life safety of this product, based on this P.A.D., provide he/she does not deviate from the conditions detailed on this document. Construction safety at site is the contractor's responsibility.

c. This P.A.D. will be considered invalid if altered by any means.

- d. Original P.A.D. shall bear the date and original seal and signature of the professional engineer of record that prepared it.
- 18. Materials, included but not limited to steel / metal screws, that come in contact with other dissimilar materials shall meet the requirements of 2007 & 2010 Florida Building Code, section 2003.8.4
- 19. Provide 1/4" max. bearing shim space.



MASTER SECURITY DOORS, INC 2179 N POWER LINE ROAD
SUITE 2
POMPANO BEACH, FL 33069
TELEPHONE: 954-971-4747
FAX: 954-971-4925

EX3 USA
INSWING DOOR
LARGE MISSILE
IMPACT RESISTANT
: ELEVATION DATE DWN: OLD 11-036 02/29/12 BY: KP, RE NONE DRAWING: DRAWN SCALE:

PRODUCT REVISER as complying with the Morket. Buiding Code Expiration Date APAZ320/L

MODEL:

12-059 DRAWING N° SHEET 1 OF 11

BILL OF MATERIALS

EM #	DESCRIPTION	MATERIAL	RTY	COMMENTS
1	HANDLE SET W/DEAD BOLT	MISC.	· · · · · · · · · · · · · · · · · · ·	
2	EXTERIOR PANEL (SEE NOTE 15)		1	NOTAPPLICABLE
<u>.</u>	INTERIOR PANEL (SEE NOTE 15)	0.250 THK. WOOD G >= 0.55	1	ATTACHED TO ITEM 11 WITH LIQUID NAIL GLUE
4	FRAME JAMBS, HEAD	0.250 THK. WOOD G >= 0.55	11	ATTACHED TO ITEM 11 WITH LIQUID NAIL GLUE
 -	FRAME CORNER KEY	HR STL W/ A52 PVC FILM	3	NOT APPLICABLE
<u> </u>	HINGE ASSEMBLY	GALV. STEEL	2	REFER TO SHEET 8
<u> </u>	ROCKWOOL INSULATION	STEEL		REFER TO SHEET 10
,		FIBERGLASS		PANEL CAVITY
	REINF (MULTI-POINT LOCK HOUSING)	STEEL		AT LOCK STILE
	9/16' X 1/8' THK OPEN CELL FOAM	EPS		
	PANEL REINF (HINGE STILE)	STEEL	1	W/ADHESIVE BACKING AND GLUED TO COMPRESSION GASKET
1	PANEL TOP, BOTTOM & STILE RAILS	HRSTLW/A52 PVC FILM	· · · · · · · · · · · · · · · · · · ·	AT HINGE STILE NOT APPLICABLE
	#5 X 1/2' PPHSMS	STEEL	4 .	
3	CISA CYLINDER ASSEMBLY LOCK	STEEL		PANELASSYSCREW
	BACKING TOBAR	GALV, STEEL	j	REFER TO SHEET 9
<u>-</u>	TOP FRAME SILL	HRSTLW/A52 PVC FILM	2	NOTAPPLICABLE
,	REAR PANEL PLATE	HOT ROLLED STEEL	1	REFER TO SHEET 6
				0.059' THK, SPOT WELDED TO ITEM 8 IN THE LOCK STILE WITH TWO ROWS OF SPOT WELDS, 4' APART, FIRST ROW AT 5/8' FROM LOCK STILE. EACH ROW WITH (8) WELDS, LOCATED (1) AT 1 1/2' FROM TOP RAIL, BALANCE AT 13 1/8', 17 1/4', 16', 3 3/4', 11', 10 3/4', 16' AND ALSO SPOT WELDED TO ITEM 10 IN THE HINGE STILE WITH ONE ROW OF (6) SPOT WELDS AT 2 1/2' FROM HINGE STILE, AND AT 2 1/2' FROM TOP RAIL, WITH BALANCE AT 14 1/2', 17', 17 7/8', 18' AND 19 1/2'.
	FRONT PANEL FORMED PLATE	HOT ROLLED STEEL	1	0.059° THK, WELDED TO THE STEEL FORMED SECTION AROUND THE ENTIRE PERIMETER ON INTERIOR AND EXTERIOR SIDE, (20) WELDS AT EACH STILE, LOCATED AT (1) AT 1/1/8° FROM TOP RAIL, THEN (19) WELDS AT 4 3/4° O-C. (8) WELDS AT TOP AND BOTTOM RAIL, EACH LOCATED (1) AT 1° FROM LOCK STILE, THEN (7) AT 5° O-C.
,	SUBFRAME HEAD	LIOT DOLL TO THE STATE OF THE S		
	SUBFRAME JAMBS	HOT ROLLED STEEL	1	REFER TO DETAIL 18, SHEET 7
	LOWER FRAME SILL	HOT ROLLED STEEL		REFER TO DETAIL 19, SHEET 7
- 1	SUBFRAME CORNER KEY	HR STL W/ A52 PVC FILM	11	REFER TO DETAIL 20, SHEET 7
	PRAME GASKET	GALV. STEEL		REFER TO DETAIL 21, SHEET 7 AND DETAIL 5, SHEET 8
	COMPRESSION GASKET	VINYL	A/R	REFER TO DETAIL 22, SHEET 11
	BLOT W/THREADED SLEEVE	VINYL		REFER TO DETAIL 23, SHEET 11
_		STEEL	5	REF DET 24, SHEET 6 AND REF DET 28, SHEET F. LOCATED AT 13/8' WIDE X 1 1/8' HIGH CUT OUTS COVERED WITH VINYL COVER (5) AT HINGE JAMB
	RETENTION CLIP HOUSING	GALV STEEL		
‡	RETENTION CLIP	GALV, STEEL	10	5 PER JAMB, SEE LOCATIONS ON SHEET 3. REF. DET 25, SHEET 11
_4	M8 X 30MM ALLEN HEAD BOLT	STEEL	10	5 PER JAMB, SEE LOCATIONS ON SHEET 3, REF. DET DG. SHEET 11
	SLOT KEEPER	PLASTIC	5	SUUSHUUT 3 FOR LONATIONS
•	SILLSWEEP		5	REF DET 28, SHEET 7. USE 5 AT HINGE JAMB AT ITEM 24.
	SILL SWEEP END GASKET	STEEL W/A52 PVC FILM	11	REF DET 28, SHEET 7. USE 5 AT HINGE JAMB AT ITEM 24. REFER TO DETAIL 29, SHEET 7 REFER TO DETAIL 20, SHEET 7
	SILL SWEEP FASTENER	VINYL	2	REFER TO DETAIL 30, SHEET 7
	5/8' X 0.090' THK OPEN CELL FOAM	STEEL		160.710
1	CHANNEL COVER (0.227' X 0.390' X 0.38 THK)	5PS		AT SILL SWEED DETILIES AND
	10.227 X 0.390 X 0.38 THK)	PLASTIC		REFER TO DETAIL ON SHEET 04 (AT SILL)

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TELEPHONE: 954-971-4747
FAX: 954-971-4925 EX3 USA
INSWING DOOR
LARGE MISSILE
IMPACT RESISTANT
E. ELEVATION DATE DWN: OLD 11-036 02/29/12 DRAWN BY: KP, REA.G. NONE DRAWING: MODEL: SCALE: PRODUCT REVISED on complying with the Florida. Building Code
Acceptance No. 12-0320-22
Empiration Date 4/23/16

> 12-059 DRAWING N°

SHEET 2 OF 11

















